PROBLEM WEEDS IN RAINFED UPLAND MAIZE CULTIVATION IN MAHAWELI SYSTEM - C

W.M.D. Wasala, S.D.G. Jayawardena,
K.P. Premaratne & F.R. Bolton
Central Agric. Research Institute, Gannoruwa.

A weed survey was carried out during Maha 86/87 in zone 2 Mahaweli system-C where rainfed maize is a common upland crop. Ten sites, each about 0.1 ha devided into twelve plots were studied by placing a quadrat ($0.25m^2$) randomly on each plot. Weeds in each quadrat were counted and dry weights were recorded prior to first weeding and at crop flowering stage. Crop history and management were recorded by questioning farmers. These sites were cropped with maize since 1981.82 except one which had been cultivated for more than 20 years. According to farmers major weeds present prior to commencement of cropping were Imperata cylindrica and Panicum maximum.

In both sampling dates Imperata cylindrica accounted for about 25% of the dry weights of the surveyed fields. Digitaria spp. Dactyloctenium aegytium and Brachiaria spp. were the other dominant grasses while Ageratum conyzoides, Commelina bengalensis, Tridax procumbens, Mimosa pudica, Boerhavia erecta and Melochea concatenata were the main broad leaf weeds. Though Ageratum was numerous it was less competitive than grasses as indicated by low dry weights. The perennial weed Cyperus rotundus population was high at one site which had a long history of cropping.

Since no surveyed site was free of perennial weeds, it is necessary to recommend a weed management system not to cause a further shift in their favour.